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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/658,859	09/09/2003	Joseph K.V. Comeau	END920030042US1	6102
30449 7590 12/27/2006 SCHMEISER, OLSEN & WATTS 22 CENTURY HILL DRIVE SUITE 302 LATHAM, NY 12110			EXAMINER WALLENHORST, MAUREEN	
			ART UNIT 1743	PAPER NUMBER
SHORTENED STATUTORY PERIOD OF RESPONSE		MAIL DATE	DELIVERY MODE	
3 MONTHS		12/27/2006	PAPER	

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary

Application No.

10/658,859

Applicant(s)

COMEAU ET AL.

Examiner

Maureen M. Wallenhorst

Art Unit

1743

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-39 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-39 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date 9/9/03.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date: ____.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: ____.

Art Unit: 1743

1. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

2. Claims 1-39 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 1 is indefinite since the preamble of the claim recites a method for testing the stability of semiconductor packaging material in a sustained oxygen environment. However, none of the steps of the method recite how this stability is evaluated. The only positively recited steps of the method comprise providing the samples of semiconductor packaging material to be evaluated, exposing the test samples to an oxygen gas under certain temperature, pressure and humidity levels and exposing the control samples to an inert gas under certain temperature, pressure and humidity levels. There is no conclusive step that recites how the exposing steps serve to evaluate the stability of the semiconductor packaging samples. Claim 1 is also indefinite since it is not clear what the temperatures " ΔT_1 " and " ΔT_2 " stand for since these temperatures have not been adequately defined. The delta Δ symbol usually means a change or a difference value of a parameter, and it is not clear what change or difference in temperature these symbols represent. It is not clear how these temperature values are obtained or established in the method.

Art Unit: 1743

The only thing positively recited in claim 1 is that " ΔT_1 " is between 0 and the value for " ΔT_2 ".

See this same problem in claims 20 and 28.

Claim 6 is indefinite and redundant with claim 1 since claim 1 already recites that the N samples are substantially identical to one another. See line 4 of claim 1.

Claim 13 is indefinite since it recites that $N=1$. However, independent claim 1, from which claim 13 depends, recite that N is a positive integer of at least 2. Therefore, N has to be 2 or greater and cannot be a value of 1 as recited in claim 13.

Claim 14 is indefinite and redundant with independent claim 1 since claim 1 already recites that N has to be an integer of at least 2. Therefore, it is understood from claim 1 that N is greater than 1.

Claim 20 is indefinite since it is not clear how the last determining step serves to evaluate the stability of the semiconductor packaging samples. It is not clear that a certain degree or level of difference in the measured characteristic between the test samples and the control samples serves to indicate a certain level of stability for the test samples, and what that degree or level of difference has to be in order to determine a certain level of stability. There is no quantitative level of difference in the measured characteristic recited to indicate to a person of ordinary skill in the art how stability in the semiconductor packaging material samples is to be assessed.

Claim 21 is indefinite and redundant with claim 20 since claim 20 already recites that the N samples are substantially identical to one another. See line 4 of claim 20.

Claim 29 is indefinite and redundant with claim 28 since claim 28 already recites that the S samples are substantially identical to one another. See lines 3-4 of claim 28.

Art Unit: 1743

3. Claims 1, 20 and 28 would be allowable if rewritten or amended to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action since none of the prior art of record teaches or fairly suggests a method and apparatus for testing a semiconductor packaging material containing a molding compound for the stability of the semiconductor packaging material in a sustained oxygen environment comprising the steps of placing at least two substantially identical samples comprising a semiconductor packaging material having a molding compound therein into a chamber, wherein the samples include both test samples and control samples, exposing the test samples in the chamber to pressurized oxygen for a certain time period under the recited temperature, pressure and humidity conditions, exposing the control samples in the chamber to a pressurized inert gas such as nitrogen for a certain time period under the recited temperature, pressure and humidity conditions, measuring a characteristic common to the test and control samples after the exposure to the pressurized gases, and determining whether a significant difference exists between the measured characteristic of the test samples and the control samples in order to assess the stability of the semiconductor packaging material samples.
4. Claims 2-19, 21-27 and 29-39 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims for the same reasons as given above.
5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Art Unit: 1743

Please make note of: JP 2003-40609 and Kinose et al who teach of semiconductor devices sealed with an epoxy resin containing red phosphorus flame retardants therein; and Kiuchi et al who teach of the problems associated with red phosphorus flame retardants in semiconductor manufacturing—see lines 58-67 in column 1 of Kiuchi et al.

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Maureen M. Wallenhorst whose telephone number is 571-272-1266. The examiner can normally be reached on Monday-Thursday from 6:00 AM to 4:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jill Warden, can be reached on 571-272-1267. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Maureen M. Wallenhorst
Primary Examiner
Art Unit 1743

mmw

December 14, 2006

Maureen M. Wallenhorst
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PRIMARY EXAMINER
GROUP 1700 1700